AIR QUALITY PERMIT

Issued To: Asphalt, LLC
6465 River Road
Bozeman, MT 59718

Permit #3320-02
Application Complete: 03/12/07
Preliminary Determination Issued: 04/20/07
Department Decision Issued: 05/08/07
Permit Final: 05/24/07
AFS #777-3320

An air quality permit, with conditions, is hereby granted to Asphalt, LLC (Asphalt) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

Asphalt operates a portable drum mix asphalt plant at various locations throughout Montana. Permit #3320-02 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, those areas considered to be tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. Addendum #3 applies to those areas in or within 10 km of certain PM_{10} nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

B. Current Permit Action

On March 12, 2007, the Department received a request from Asphalt for a modification to Permit #3320-01 for the addition of a diesel fuel storage tank, and the option to use alternative fuels in the burner.

Section II: Conditions and Limitations

A. Emission Limitations

1. Asphalt plant particulate matter emissions shall be limited to 0.04 grains per dry standard cubic feet (gr/dscf) (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).

2. Asphalt shall not cause or authorize to be discharged into the atmosphere from the asphalt plant, stack emissions that exhibit 20% opacity or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).

3. Asphalt shall not cause or authorize to be discharged into the atmosphere from systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler; systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).

4. Asphalt shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).

5. Asphalt shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.752).

6. A baghouse for air pollution control, with a device to measure the pressure drop (magnehelic gauge, manometer, etc.), must be installed and maintained on the asphalt drum and lime silo. Pressure drop must be measured in inches of water. Temperature indicators at the control device inlet and outlet must be installed and maintained (ARM 17.8.752).

7. Once a stack test is performed, the asphalt production rate shall be limited to the average production rate during the last source test demonstrating compliance (ARM 17.8.749).

8. Asphalt shall only use natural gas, propane, or fuel oil to fire the hot mix dryer (ARM 17.8.749).

9. Asphalt plant production shall not exceed 825,000 tons during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

10. The hours of operation for each of the diesel generators shall not exceed 5,500 hours during any rolling 12-month time period (ARM 17.8.1204).

11. The two diesel generators used with this facility shall not have a combined capacity greater than 650-kilowatts (kW) (ARM 17.8.749).

12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Asphalt, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculation used to establish production levels shall be approved by the Department (ARM 17.8.749).

13. Asphalt shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR Part 60, Subpart I, as it applies to this asphalt operation (ARM 17.8.340 and 40 CFR 60, Subpart I).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start up, an Environmental Protection Agency (EPA) Methods 1-5 and 9 source test shall be performed on the asphalt plant to demonstrate compliance with Section II.A.1, Section II.A.2 and Section II.A.3, respectively. Testing shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

2. Pressure drop on the control device and temperature must be recorded daily and kept on site according to Section II.C.2 (ARM 17.8.749).
3. Pressure drop on the control device and temperatures must be recorded during the compliance source test and reported as part of the test results (ARM 17.8.749).

4. All compliance source tests must be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

5. Since asphalt production will be limited to the average production rate during the compliance source test, it is suggested the test be performed at the highest production rate practical (ARM 17.8.749).

6. Asphalt may retest at any time in order to test at a higher production rate (ARM 17.8.749).

7. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this asphalt plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area where the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department upon request (ARM 17.8.765).

2. Asphalt shall maintain on-site records showing daily hours of operation, daily production rates, and daily pressure drop and temperature readings for the last 12 months. The records compiled in accordance with this permit shall be maintained by Asphalt as a permanent business record for at least 5 years following the date of the measurement, must be submitted to the Department upon request, and must be available at the plant for inspection by the Department (ARM 17.8.749).

3. Asphalt shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in Section I.A of the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

4. Asphalt shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. This notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the

event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

5. Asphalt shall document, by month, the asphalt production of the facility. By the 25th day of each month, Asphalt shall calculate the total asphalt production for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation contained in Section II.A.9. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

6. Asphalt shall document, by month, the combined hours of operation of the two diesel generators. By the 25th day of each month, Asphalt shall calculate the total combined hours of operation of the diesel generators for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation contained in Section II.A.10. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

7. Asphalt shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted with the annual emissions inventory information (ARM 17.8.1204).

Section III: General Conditions

A. Inspection - Asphalt shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Asphalt fails to appeal as indicated below.

C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Asphalt of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement, as specified in Section 75-2-401, *et seq.*, MCA.

E. Appeals - Any person or persons jointly or severally adversely affected by the Department’s decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the

application is final 16 days after the Department's decision is made.

F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fee - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Asphalt may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.

J. Asphalt shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas having a Department-approved permitting program.

PERMIT ANALYSIS
Asphalt, LLC
Permit #3320-02

I. Introduction/Process Description

A. Permitted Equipment

Asphalt, LLC (Asphalt) owns and operates a portable 1997 Gencor counterflow drum mix asphalt plant (maximum capacity 150-tons per hour (TPH)). Equipment used at the facility includes, but is not limited to the following:

1. (1) 1997 Gencor counterflow drum mix asphalt plant (up to 150 TPH) with baghouse (fired on natural gas, propane, or fuel oil)
2. (1) Diesel Generator (up to 50-kilowatt (kW)) used to fire the asphalt heater
3. (1) Diesel Generator (up to 600 kW) used to fire the asphalt plant
4. Associated equipment (lime silo, elevator, screens, bins, mixer, conveyors, etc.)
5. Fuel Oil Storage Tank (up to 10,000 gallons)

B. Source Description

For a typical operational set-up, stockpiled aggregate is loaded into the cold feeder. The aggregate is dispensed from the bins, and dumped onto feeder conveyors that transfer the aggregate to the drum mix dryer. The aggregate travels through the rotating drum where asphalt oil and lime is added to the dryer. The dryer drum mixes the asphalt oil, lime, and the aggregate. The resulting hot-mix asphalt is loaded into a hot mix asphalt storage silo where it is stored until the asphalt is dumped into trucks for transport to the project site.

C. Permit History

On August 5, 2004, AggQuip, LLC (AggQuip) was issued **Permit #3320-00** to operate a portable drum mix asphalt plant (maximum capacity up to 150 TPH), two generators (combined maximum capacity 650 kW), and associated equipment).

On August 18, 2006, the Department of Environmental Quality (Department) received a notification that AggQuip had transferred ownership to Asphalt. This permitting action transferred ownership of Permit #3320-01 from AggQuip to Asphalt and updated the permit to reflect current permit language and format. **Permit #3320-01** replaced Permit #3320-00 and **Addendum #2** replaced Addendum #1.

D. Current Permit

On March 12, 2007, the Department received a request from Asphalt for a modification to Permit #3320-01 for the addition of a diesel fuel storage tank, and to include an option to use alternative fuels to fire the drum-mix asphalt plant. The Department modified permit #3320-01 as requested. **Permit #3320-02** will replace Permit #3320-01 and **Addendum #3** replaces Addendum #2.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated

with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   Asphalt shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Asphalt must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter (PM). (2) Under this rule, Asphalt shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.

6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is an NSPS affected facility under 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities), because the facility was constructed after June 11, 1973. Therefore, the facility is subject to the requirements of 40 CFR Part 60, Subpart I.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that Asphalt submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Asphalt submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation

fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a facility to obtain an air quality permit or permit alteration to construct, modify, or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Asphalt has a PTE greater than 15 tons per year of PM, particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), nitrogen oxides (NO_X), carbon monoxide (CO), and volatile organic compounds (VOC); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permit--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that are not subject to the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Asphalt submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Asphalt submitted an affidavit of publication of public notice for the March 11, 2007, issue of the *Bozeman Daily Chronicle*, a newspaper of general circulation in the Town of Bozeman in Gallatin County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits

shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Asphalt of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

   This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 tons per year (excluding fugitive emissions) of any air pollutant.

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

   c. PTE > 70 tons/year of PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3320-02 for Asphalt, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year for any criteria pollutant.

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is subject to a current NSPS (40 CFR 60, Subpart I) standards.

   e. This facility is not subject to any current National Emission Standards for Hazardous Air Pollutants (NESHAP) standards.

   f. This source is not a Title IV affected source or a solid waste combustion unit.

   g. This source is not an EPA designated Title V source.

   Based on these facts, the Department has determined that Asphalt will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Asphalt will be required to obtain a Title V Operating Permit.

h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations, which limit that source's potential to emit.

i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's potential to emit does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

The Department has determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal required by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

A BACT determination is required for each new or altered source. Asphalt shall install on the new or altered source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized.

Asphalt proposed to control particulate emissions from the hot-mix asphalt plant with a baghouse. All visible emissions from the asphalt plant including systems for handling, storing, and weighing hot aggregate, systems for loading, transferring, and storing mineral filler, systems for mixing hot-mix asphalt, and the loading, transfer, and storage systems associated with emission control systems are limited to 20% opacity.

In addition, all asphalt particulate emissions are limited to 0.04 grains per dry standard cubic foot (gr/dscf). Further, Asphalt must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking lots, and the general plant area. Reasonable precautions include treating all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintaining a baghouse to maintain compliance with the corresponding limitations in Section I.A of the permit and using water and/or chemical dust suppressant to comply with the reasonable precautions limitation will constitute BACT for the Asphalt facility.

Because of the limited amount of emissions produced by the diesel generator/engine and the lack of readily available/cost effective add-on controls, add-on controls would be cost prohibitive. Therefore, the Department determined that proper operation and maintenance with no additional controls would constitute BACT for the diesel generator/engine.

Because of the small size of the storage tank, and the limited amount of emissions, add on controls would be cost prohibitive. Therefore, the Department determined that no additional control constitutes BACT for the VOCs from the fuel oil storage tank. Asphalt shall maintain and operate the affected storage tank in a manner consistent with good air pollution control practices for minimizing VOC emissions including, but not limited to, the maintenance of equipment seals, flanges, and gaskets, etc., as applicable.

The control options required for the proposed asphalt facility, for the diesel generator/engine that would be used to power the facility, and for the fuel oil storage tank are similar to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

	Tons/Year					
Source	PM	PM_{10}	NO_x	VOC	CO	SO_x
1997 Gencor Asphalt Plant w/Baghouse	15.11	7.56	22.69	13.20	53.63	23.93
Elevator, Sceens, Bins, and Mixer	15.47	12.38				
Cold Aggregate Handling	20.63	16.50				
Diesel Generator for Asphalt Heater (up to 50 kW)	0.41	0.41	4.43	0.46	1.23	0.38
Diesel Generator (up to 600 KW)	4.87	4.87	68.63	5.47	14.78	4.54
Lime Usage from Storage Silo	0.01	0.01				
Diesel Fuel Storage Tank				13.51		
Haul Roads	12.68	3.60				
Total	69.18	45.30	95.75	32.64	69.64	28.85

Plant Elevation 5400 ft
Actual Pressure 24.52 in. Hg
Standard Pressure 29.92 in. Hg
Flowrate 30000 acfm (taken from similar size source)
Std. Temp 20ºC 68ºF 528ºR
Assumed Stack Temp 177ºC 350ºF 810ºR
Correction Formula V1 = V2(P2/P1)(T1/T2)
Corr Flowrate 30000acfm * (24.52 in Hg/29.92 in. Hg) * (528ºR/810ºR) = 16026 dscfm

Flowrate (Default for Source Test Information) 16026

1997 Gencor Asphalt Plant w/ Baghouse

Maximum Process Rate: 150 ton/hr
Process Airflow Rate: 16026
Hours of operation: 5500 hr/yr

PM Emissions:
Emission Factor: 0.04 lb/ton (40 CFR 60, Subpart I, Limit)
Hourly Calculations: 0.04 lb/ton * 16026 dscf/min * 1lb/7000gr * 60 min/hr = 5.49lb/hr
Daily Calculations: 5.49 lb/hr * 15 hr/day = 82.35 lb/day
Annual Calculations: 5.49 lb/hr * 5500 hr/yr * 0.0005 ton/lb = 15.10 ton/yr

PM_{10} Emissions:
Emission Factor: 0.020 gr/dscf (assume 80% of PM is PM_{10} for Baghouse Control)
Hourly Calculations: 0.020 gr/dscf * 16026 dscf/min * 1lb/7000gr * 60 min/hr = 2.75 lb/hr
Daily Calculations: 2.75 lb/hr * 15 hr/day = 41.25 lb/day
Annual Calculations: 2.75 lb/hr * 5500 hr/yr * 0.0005 ton/lb = 7.56 ton/yr

NOx Emissions:
Emission Factor: 0.055 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)
Hourly Calculations: 0.055 lb/ton * 150 ton/hr = 8.25 lb/hr
Daily Calculations: 8.25 lb/hr * 15 hr/day = 123.75 lb/day

Annual Calculation:	8.25 lb/hr * 5500 hr/yr *0.0005 ton/lb =	22.69 ton/yr

VOC Emissions:

Emission Factor:	0.032 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)	
Hourly Calculations:	0.032 lb/ton * 150 ton/hr =	4.80 lb/hr
Daily Calculations:	4.80 lb/hr * 15 hr/day =	72 lb/day
Annual Calculation:	4.80 lb/hr * 5500 hr/yr * 0.0005 lb/ton =	13.20 ton/yr

CO Emissions:

Emission Factor:	0.13 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)	
Hourly Calculations:	0.13 lb/ton * 150 ton/hr =	19.50 lb/hr
Daily Calculations:	19.50 lb/hr * 15 hr/day =	292.50 lb/day
Annual Calculation:	19.50 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	53.63 ton/yr

SOx Emissions:

Emission Factor:	0.058 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)	
Hourly Calculations:	0.058 lb/ton * 150 ton/hr =	8.70 lb/hr
Daily Calculations:	8.70 lb/hr * 15 hr/day =	130.50 lb/day
Annual Calculation:	8.70 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	23.93 ton/yr

Diesel Generator

Generator Size =	up to 50 kW
1kW =	1.341 hp
50 kW * 1.341 =	67.05 hp

Hours of operation: 5500 hr/yr

PM Emissions

Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.0022 lb/hp-hr =	0.15 lb/hr
Daily Calculations:	67.05 hp * 0.0022 lb/hp-hr * 15 hr/day =	2.22 lb/day
Annual Calculation:	67.05 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	0.41 ton/yr

PM_{10} Emissions:

Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.0022 lb/hp-hr =	0.15 lb/hr
Daily Calculations:	67.05 hp * 0.0022 lb/hp-hr * 15 hr/day =	2.22 lb/day
Annual Calculation:	67.05 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	0.41 ton/yr

NOx Emissions:

Emission Factor:	0.024 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.024 lb/hp-hr =	1.61 lb/hr
Daily Calculations:	67.05 hp * 0.024 lb/hp-hr * 15 hr/day =	24.14 lb/day
Annual Calculation:	67.05 hp * 0.024 * 5500hr/yr * 0.0005 lb/ton =	4.43 ton/yr

VOC Emissions:

Emission Factor:	0.00247 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.00247 lb/hp-hr =	0.17 lb/hr
Daily Calculations:	67.05 hp * 0.00247 lb/hp-hr * 15 hr/day =	2.50 lb/day
Annual Calculation:	67.05 hp * 0.00247 * 5500hr/yr * 0.0005 lb/ton =	0.46 ton/yr

CO Emissions:

Emission Factor:	0.00668 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.00668 lb/hp-hr =	0.45 lb/hr
Daily Calculations:	67.05 hp * 0.00668 lb/hp-hr * 15 hr/day =	6.75 lb/day
Annual Calculation:	67.05 hp * 0.00668 * 5500hr/yr * 0.0005 lb/ton =	1.23 ton/yr

SOx Emissions:

Emission Factor:	0.00205 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.00205 lb/hp-hr =	0.14 lb/hr
Daily Calculations:	67.05 hp * 0.00205 lb/hp-hr * 15 hr/day =	2.07 lb/day

Diesel Generator

Generator Size =	up to 600 kW	
1kW =	1.341 hp	
600 kW * 1.341 =	805 hp	
Hours of operation:	5500 hr/yr or 15 hr/day	
PM Emissions		
Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.0022 lb/hp-hr =	1.77 lb/hr
Daily Calculations:	805 hp * 0.0022 lb/hp-hr * 15 hr/day =	26.57 lb/day
Annual Calculation:	805 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	4.87 ton/yr
PM_{10} Emissions:		
Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.0022 lb/hp-hr =	1.77 lb/hr
Daily Calculations:	805 hp * 0.0022 lb/hp-hr * 15 hr/day =	26.57 lb/day
Annual Calculation:	805 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	4.87 ton/yr
NOx Emissions:		
Emission Factor:	0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.031 lb/hp-hr =	24.96 lb/hr
Daily Calculations:	805 hp * 0.031 lb/hp-hr * 15 hr/day =	374.33 lb/day
Annual Calculation:	805 hp * 0.031 * 5500hr/yr * 0.0005 lb/ton =	68.62 ton/yr
VOC Emissions:		
Emission Factor:	0.00247 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.00247 lb/hp-hr =	1.99 lb/hr
Daily Calculations:	805 hp * 0.00247 lb/hp-hr * 15 hr/day =	29.95 lb/day
Annual Calculation:	805 hp * 0.00247 * 5500hr/yr * 0.0005 lb/ton =	5.47 ton/yr
CO Emissions:		
Emission Factor:	0.00668 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.00668 lb/hp-hr =	5.37 lb/hr
Daily Calculations:	805 hp * 0.00668 lb/hp-hr * 15 hr/day =	80.99 lb/day
Annual Calculation:	805 hp * 0.00668 * 5500hr/yr * 0.0005 lb/ton =	14.78 ton/yr
SOx Emissions:		
Emission Factor:	0.00205 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.00205 lb/hp-hr =	1.65 lb/hr
Daily Calculations:	805 hp * 0.00205 lb/hp-hr * 15 hr/day =	24.85 lb/day
Annual Calculation:	805 hp * 0.00205 * 5500hr/yr * 0.0005 lb/ton =	4.54 ton/yr

Elevators, Screens, Bins, and Mixer

Maximum Process Rate:	150 ton/hr	
Hours of operation:	5500 hr/yr or 15 hr/day	
PM Emissions:		
Emission Factor:	0.0375 lb/ton (1.255 of PM_{10} is PM)	
Hourly Calculations:	0.0375 lb/ton * 150 tons/hr =	5.63 lb/hr
Daily Calculations:	5.63 lb/hr * 15 hr/day =	84.38 lb/day
Annual Calculations:	5.63 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	15.47 ton/yr
PM_{10} Emissions:		
Emission Factor:	0.03 lb/ton (AFSSCC 30500202, page 5498, Fall 1997)	
Hourly Calculations:	0.03 lb/ton * 150 ton/hr =	4.50 lb/hr
Daily Calculations:	4.50 lb/hr * 15 hr/day =	67.5 lb/day
Annual Calculations:	4.50 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	12.38 ton/yr

Cold Aggregate Handling

Maximum Process Rate:	150 ton/hr		
Hours of operation:	5500 hr/yr or 15 hr/day		
PM Emissions:			
Emission Factor:	0.05 lb/ton	(1.25% of PM_{10} is PM)	
Hourly Calculations:	0.05 lb/ton * 150 ton/hr =		7.50 lb/hr
Daily Calculations:	7.50 lb/hr * 15 hr/day =		112.5 lb/day
Annual Calculations:	7.50 lb/hr * 5500 hr/yr * 0.0005 ton/lb =		20.63 ton/yr
PM_{10} Emissions:			
Emission Factor:	0.04 lb/ton	(AFSSCC 30500204, page 5500, Fall 97)	
Hourly Calculations:	0.04 lb/ton * 150 tons/hr =		6.00 lb/hr
Daily Calculations:	6.00 lb/hr * 15 hr/day =		90.00 lb/day
Annual Calculations:	6.00 lb/hr * 5500 hr/yr * 0.0005 ton/lb =		16.50 ton/yr

Lime Usage from Storage Silo

Plant Production Rate:	16.3 yd^3/hr		
Cement in Mix	0.2455 ton/yd^3	(AP-42, page 11.12-2, 10/01	
Amount of Cement Used	16.30 yd^3/hr * 0.2455 ton/yd^3 = 4 ton/hr		
Control Technology	Baghouse Control		
Hours of Operation	5500 hr/yr or 15 hr/day		
PM Emissions:			
Emission Factor:	0.72 lb/ton	(AP-42, table 11.12-2, 10/01)	
Control Efficiency:	99.90% Silo enclosure/baghouse (required permit condition)		
Hourly Calculations:	0.72 lb/ton * 4.0 ton/hr * (1-0.999) =		0.003 lb/hr
Daily Calculations:	0.003 lb/hr * 15 hr/day =		0.045 lb/day
Annual Calculations:	0.003 lb/hr * 5500 hr/yr * 0.0005 ton/lb =		0.01 ton/yr
PM_{10} Emissions:			
Emission Factor:	0.046 lb/ton	(AP-42, table 11.12-2, 10/01)	
Control Efficiency:	99.90% silo enclosure/baghouse (required permit condition)		
Hourly Calculations:	0.046 lb/ton * 4.0 ton/hr * (1-0.999) =		0.002 lb/hr
Daily Calculations:	0.002 lb/hr * 15 hr/day =		0.03 lb/day
Annual Calculations:	0.002 lb/hr * 5500 hr/yr * 0.0005 ton/lb =		0.006 ton/yr

Haul Roads

Vehicle miles traveled:	5 VMT/day {Estimated}		
Assumption:	Rated Load Capacity < 50 tons		
Hours of Operation:	8760 hr/yr		
	24 hr/day		
	365 day/yr		
TSP Emissions:			
Emission Factor:	13.90 lb/VMT (controlled)	(AP-42 Section 13.2.2, 12/03)	
Calculations:	5.0 VMT/day * 13.90 lb/VMT =		69.50 lb/day
	69.50 lb/day * 365 day/yr * 0.0005 ton/lb =		12.68 ton/yr
PM-10 Emissions:			
Emission Factor:	3.95 lb/VMT (controlled)	(AP-42 Section 13.2.2, 12/03)	
Calculations:	5 VMT/day * 3.95 lb/VMT =		19.75 lb/day
	19.75 lb/day * 365 day/yr * 0.0005 ton/lb =		3.60 ton/yr

V. Existing Air Quality

Permit #3320-02 is issued for the operation of a portable drum mix asphalt plant to be initially located in Section 31, Township 28 North, Range 21 West, in Yellowstone County, Montana.

Permit #3320-02 will also cover the plant while operating at any location within Montana, excluding those counties that have a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain PM_{10} nonattainment areas (where Addendum #3 will apply). In the view of the Department, the amount of controlled emissions generated by this facility will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minimal.

VI. Air Quality Impacts

Permit #3320-02 will cover the operations of this portable drum mix asphalt plant while operating in those areas within Montana, classified as being in attainment with federal ambient air quality standards, and those areas still undefined (not yet classified). Additionally, Addendum #3 will cover the asphalt plant operations during the summer months (April 1-September 30) at, in or within 10 km of certain PM_{10} nonattainment areas. Based on the information provided, the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standard for operations in these areas. In addition, this source is portable and any air quality impacts will be minor and short-lived.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act (MEPA), was completed for this project. A copy is attached.

Addendum #3
Asphalt, LLC
Permit #3320-02

An addendum to air quality Permit #3320-02, with conditions, is issued to Asphalt, LLC (Asphalt) pursuant to Sections 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment:

Asphalt operates a portable drum mix asphalt plant at various locations throughout Montana, including in or within 10 kilometers (km) of the following particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas: Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte.

II. Seasonal and Site Restrictions

Addendum #3 applies to the Asphalt facility while operating at any location in or within 10 km of certain PM_{10} nonattainment areas (Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte). Additionally, seasonal and site restrictions apply to the facility as follows:

A. During the winter season (October 1-March 31), Asphalt would not be allowed to operate in or within 10 km of the listed PM_{10} nonattainment areas.

B. During the summer season (April 1-September 30), Asphalt may operate at any location in or within 10 km of the Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte PM_{10} nonattainment areas.

C. Asphalt shall comply with the limitations and conditions contained in Addendum #3 to Permit #3320-02 while operating in or within 10 km of any of the previously listed PM_{10} nonattainment areas. Addendum #3 shall be valid until revoked or modified. The Department of Environmental Quality (Department) reserves the authority to modify Addendum #3 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

A. Operational

1. Asphalt plant particulate matter emissions shall be limited to 0.40 grains per dry standard cubic feet (gr/dscf) (ARM 17.8.752).

2. All visible emissions from the asphalt plant stack shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

3. Asphalt shall not cause or authorize to be discharged into the atmosphere from any equipment, such as systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler; systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

4. Asphalt shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant area, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

5. Asphalt shall treat all unpaved portions of the haul roads, access roads, parking lots, and general plant area with water and/or chemical dust suppressant, as necessary to maintain compliance with the 10% opacity limitation contained in Section III.A.4 (ARM 17.8.749).

6. Asphalt plant production shall not exceed 2,250 tons during any rolling 24-hour time period (ARM 17.8.1204).

7. The hours of operation for each of the two diesel generators shall not exceed 15 hours per generator during any rolling 24-hour time period (ARM 17.8.1204).

B. Operational Reporting Requirements

1. Asphalt shall provide the Department with written notification of job completion within 10 working days of job completion (ARM 17.8.749).

2. Asphalt shall provide written notice of relocation of the permitted equipment at least 15 days prior to the physical transfer of equipment (ARM 17.8.765).

3. Production information for the sites covered by this addendum must be submitted to the Department within 30 days of completion of the project. The information shall include (ARM 17.8.749):

   a. Tons of asphalt produced

   b. Daily hours of operation

   c. Type and amount of fuel used for the asphalt plant (hot mix dryer)

   d. Gallons of diesel fuel used for each of the two diesel generators (including the asphalt heater)

   e. Fugitive dust information consisting of a listing of all plant vehicles, including the following for each vehicle type:

      i. Number of vehicles
      ii. Vehicle type
      iii. Vehicle weight, loaded
      iv. Vehicle weight, unloaded
      v. Number of tires on vehicle
      vi. Average trip length
      vii. Number of trips per day per vehicle
      viii. Average vehicle speed
      ix. Area of activity
      x. Vehicle fuel usage (gasoline and diesel) annual total

f. Fugitive dust control for haul roads and general plant area:

i. Hours of operation of water trucks
ii. Application schedule for chemical dust suppressant, if applicable

4. Asphalt shall document, by day, the total asphalt production. Asphalt shall sum the total asphalt production during the previous 24 hours to verify compliance with the limitation in Section III.A.6. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.752).

5. Asphalt shall document, by day, the total hours of operation of the diesel generator. Asphalt shall sum the total hours of operation of the diesel generator, during the previous 24 hours, to verify compliance with the limitation in Section III.A.7. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.752).

Addendum #3 Analysis
Asphalt, LLC
Permit #3320-02

I. Permitted Equipment

Asphalt, LLC (Asphalt) owns and operates a portable asphalt plant (maximum capacity 150 tons per hour (TPH)). Equipment used at the facility includes, but is not limited to the following:

A. (1) 1997 Gencor counterflow drum mix asphalt plant (maximum capacity of 150 TPH) with baghouse
B. (1) Diesel Generator (up to 50-kilowatt (kW)) used to fire the asphalt heater
C. (1) Diesel Generator (up to 600 kW) used to fire the asphalt plant
D. Associated equipment (lime silo, elevator, screens, bins, mixer, conveyors, etc.)
E. Diesel Fuel Storage Tank (up to 10,000 gallons capacity)

II. Source Description

For a typical operational set-up, stockpiled aggregate is loaded into the cold feeder. The aggregate is dispensed from the bins, and dumped onto feeder conveyors that transfer the aggregate to the drum mix dryer. The aggregate travels through the rotating drum where asphalt oil and lime is added to the dryer. The dryer drum mixes the asphalt oil, lime, and the aggregate. The resulting hot-mix asphalt is loaded into a hot mix asphalt storage silo where it is stored until the asphalt is dumped into trucks for transport to the project site.

III. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

A. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that Asphalt demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. Asphalt demonstrated compliance with all applicable rules and standards as required for permit issuance.

B. ARM 17.8.764 Administrative Amendment of Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase in emissions because of the changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:

1. Written notice of Intent to Transfer location and public notice is sent to the Department

2. The source will operate in the new location for a period of less than 1 year

3. The source will not have any significant impact on any nonattainment area or any Class I area.

Asphalt shall submit proof of compliance with the transfer and public notice requirements when Asphalt transfers to any of the locations covered by this addendum and will only be allowed to stay in the new location for a period of less than 1 year. Also, the conditions and limitations in Addendum #3 to Permit #3320-02 will prevent Asphalt from having a significant impact on certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas.

IV. Emission Inventory

	Lb/Day					
Source	PM	PM_{10}	NO_x	VOC	CO	SO_x
1997 Gencor Asphalt Plant w/Baghouse	82.35	41.25	123.75	72.0	292.50	130.50
Elevator, Sceens, Bins, and Mixer	84.38	67.5				
Cold Aggregate Handling	130.38	104.30				
Diesel Generator for Asphalt Heater (up to 50 kW)	2.22	2.22	24.14	2.50	6.75	2.07
Diesel Generator (up to 600 KW)	26.57	26.57	274.33	29.95	80.99	24.85
Lime Usage from Storage Silo	0.45	0.03				
Haul Roads	69.50	19.75				
Diesel Storage Tank				74.16		
Total	395.47	261.63	422.22	178.61	380.24	157.42

Plant Elevation	5400 ft
Actual Pressure	24.52 in. Hg
Standard Pressure	29.92 in. Hg
Flowrate	30000 acfm (taken from similar size source)
Std. Temp	20ºC 68ºF 528ºR
Assumed Stack Temp	177ºC 350ºF 810ºR
Correction Formula	V1 = V2(P2/P1)(T1/T2)
Corr Flowrate dscfm	30000 acfm * (24.52 in Hg/29.92 in. Hg) * (528ºR/810ºR) = 16026

Flowrate (Default for Source Test Information 16026

1997 Gencor Asphalt Plant w/ Baghouse

Maximum Process Rate:	150 ton/hr
Process Airflow Rate:	16026
Hours of operation:	5500 hr/yr

PM Emissions:

Emission Factor:	0.04 lb/ton (40 CFR 60, Subpart I, Limit)	
Hourly Calculations:	0.04 lb/ton * 16026 dscf/min * 1lb/7000gr * 60 min/hr =	5.49lb/hr
Daily Calculations:	5.49 lb/hr * 15 hr/day =	82.35 lb/day
Annual Calculations:	5.49 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	15.10 ton/yr

PM_{10} Emissions:

Emission Factor:	0.020 gr/dscf (assume 80% of PM is PM_{10} for Baghouse Control)	
Hourly Calculations:	0.020 gr/dscf * 16026 dscf/min * 1lb/7000gr * 60 min/hr =	2.75 lb/hr
Daily Calculations:	2.75 lb/hr * 15 hr/day =	41.25 lb/day
Annual Calculations:	2.75 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	7.56 ton/yr

NOx Emissions:

Emission Factor:	0.055 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)	
Hourly Calculations:	0.055 lb/ton * 150 ton/hr =	8.25 lb/hr
Daily Calculations:	8.25 lb/hr * 15 hr/day =	123.75 lb/day
Annual Calculation:	8.25 lb/hr * 5500 hr/yr *0.0005 ton/lb =	22.69 ton/yr

VOC Emissions:

Emission Factor:	0.032 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)	
Hourly Calculations:	0.032 lb/ton * 150 ton/hr =	4.80 lb/hr
Daily Calculations:	4.80 lb/hr * 15 hr/day =	72 lb/day
Annual Calculation:	4.80 lb/hr * 5500 hr/yr * 0.0005 lb/ton =	13.20 ton/yr

CO Emissions:

Emission Factor:	0.13 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)	
Hourly Calculations:	0.13 lb/ton * 150 ton/hr =	19.50 lb/hr
Daily Calculations:	19.50 lb/hr * 15 hr/day =	292.50 lb/day
Annual Calculation:	19.50 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	53.63 ton/yr

SOx Emissions:

Emission Factor:	0.058 lb/ton (AP-42, Table 11.1-7, Oil-Fired Plant)	
Hourly Calculations:	0.058 lb/ton * 150 ton/hr =	8.70 lb/hr
Daily Calculations:	8.70 lb/hr * 15 hr/day =	130.50 lb/day
Annual Calculation:	8.70 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	23.93 ton/yr

Diesel Generator

Generator Size =	up to 50 kW
1kW =	1.341 hp
50 kW * 1.341 =	67.05 hp

Hours of operation: 5500 hr/yr

PM Emissions

Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.0022 lb/hp-hr =	0.15 lb/hr
Daily Calculations:	67.05 hp * 0.0022 lb/hp-hr * 15 hr/day =	2.22 lb/day
Annual Calculation:	67.05 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	0.41 ton/yr

PM_{10} Emissions:

Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.0022 lb/hp-hr =	0.15 lb/hr
Daily Calculations:	67.05 hp * 0.0022 lb/hp-hr * 15 hr/day =	2.22 lb/day
Annual Calculation:	67.05 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	0.41 ton/yr

NOx Emissions:

Emission Factor:	0.024 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.024 lb/hp-hr =	1.61 lb/hr
Daily Calculations:	67.05 hp * 0.024 lb/hp-hr * 15 hr/day =	24.14 lb/day
Annual Calculation:	67.05 hp * 0.024 * 5500hr/yr * 0.0005 lb/ton =	4.43 ton/yr

VOC Emissions:

Emission Factor:	0.00247 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.00247 lb/hp-hr =	0.17 lb/hr
Daily Calculations:	67.05 hp * 0.00247 lb/hp-hr * 15 hr/day =	2.50 lb/day
Annual Calculation:	67.05 hp * 0.00247 * 5500hr/yr * 0.0005 lb/ton =	0.46 ton/yr

CO Emissions:

Emission Factor:	0.00668 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.00668 lb/hp-hr =	0.45 lb/hr
Daily Calculations:	67.05 hp * 0.00668 lb/hp-hr * 15 hr/day =	6.75 lb/day
Annual Calculation:	67.05 hp * 0.00668 * 5500hr/yr * 0.0005 lb/ton =	1.23 ton/yr

SOx Emissions:

Emission Factor:	0.00205 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	67.05 hp * 0.00205 lb/hp-hr =	0.14 lb/hr
Daily Calculations:	67.05 hp * 0.00205 lb/hp-hr * 15 hr/day =	2.07 lb/day
Annual Calculation:	67.05 hp * 0.00205 * 5500hr/yr * 0.0005 lb/ton =	0.38 ton/yr

Diesel Generator

Generator Size =	up to 600 kW
1kW =	1.341 hp
600 kW * 1.341 =	805 hp

Hours of operation: 5500 hr/yr or 15 hr/day

PM Emissions

Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.0022 lb/hp-hr =	1.77 lb/hr
Daily Calculations:	805 hp * 0.0022 lb/hp-hr * 15 hr/day =	26.57 lb/day
Annual Calculation:	805 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	4.87 ton/yr

PM_{10} Emissions:

Emission Factor:	0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.0022 lb/hp-hr =	1.77 lb/hr
Daily Calculations:	805 hp * 0.0022 lb/hp-hr * 15 hr/day =	26.57 lb/day
Annual Calculation:	805 hp * 0.0022 * 5500hr/yr * 0.0005 lb/ton =	4.87 ton/yr

NOx Emissions:

Emission Factor:	0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.031 lb/hp-hr =	24.96 lb/hr
Daily Calculations:	805 hp * 0.031 lb/hp-hr * 15 hr/day =	374.33 lb/day
Annual Calculation:	805 hp * 0.031 * 5500hr/yr * 0.0005 lb/ton =	68.62 ton/yr

VOC Emissions:

Emission Factor:	0.00247 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.00247 lb/hp-hr =	1.99 lb/hr
Daily Calculations:	805 hp * 0.00247 lb/hp-hr * 15 hr/day =	29.95 lb/day
Annual Calculation:	805 hp * 0.00247 * 5500hr/yr * 0.0005 lb/ton =	5.47 ton/yr

CO Emissions:

Emission Factor:	0.00668 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.00668 lb/hp-hr =	5.37 lb/hr
Daily Calculations:	805 hp * 0.00668 lb/hp-hr * 15 hr/day =	80.99 lb/day
Annual Calculation:	805 hp * 0.00668 * 5500hr/yr * 0.0005 lb/ton =	14.78 ton/yr

SOx Emissions:

Emission Factor:	0.00205 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	805 hp * 0.00205 lb/hp-hr =	1.65 lb/hr
Daily Calculations:	805 hp * 0.00205 lb/hp-hr * 15 hr/day =	24.85 lb/day
Annual Calculation:	805 hp * 0.00205 * 5500hr/yr * 0.0005 lb/ton =	4.54 ton/yr

Elevators, Screens, Bins, and Mixer

Maximum Process Rate:	150 ton/hr
Hours of operation:	5500 hr/yr or 15 hr/day

PM Emissions:

Emission Factor:	0.0375 lb/ton (1.255 of PM_{10} is PM)	
Hourly Calculations:	0.0375 lb/ton * 150 tons/hr =	5.63 lb/hr
Daily Calculations:	5.63 lb/hr * 15 hr/day =	84.38 lb/day
Annual Calculations:	5.63 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	15.47 ton/yr

PM_{10} Emissions:

Emission Factor:	0.03 lb/ton (AFSSCC 30500202, page 5498, Fall 1997)	
Hourly Calculations:	0.03 lb/ton * 150 ton/hr =	4.50 lb/hr
Daily Calculations:	4.50 lb/hr * 15 hr/day =	67.5 lb/day
Annual Calculations:	4.50 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	12.38 ton/yr

Cold Aggregate Handling

Maximum Process Rate: 150 ton/hr
Hours of operation: 5500 hr/yr or 15 hr/day

PM Emissions:

Emission Factor:	0.05 lb/ton (1.25% of PM_{10} is PM)	
Hourly Calculations:	0.05 lb/ton * 150 ton/hr =	7.50 lb/hr
Daily Calculations:	7.50 lb/hr * 15 hr/day =	112.5 lb/day
Annual Calculations:	7.50 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	20.63 ton/yr

PM_{10} Emissions:

Emission Factor:	0.04 lb/ton (AFSSCC 30500204, page 5500, Fall 97)	
Hourly Calculations:	0.04 lb/ton * 150 tons/hr =	6.00 lb/hr
Daily Calculations:	6.00 lb/hr * 15 hr/day =	90.00 lb/day
Annual Calculations:	6.00 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	16.50 ton/yr

Lime Usage from Storage Silo

Plant Production Rate: 16.3 yd^3/hr
Cement in Mix 0.2455 ton/yd^3 (AP-42, page 11.12-2, 10/01
Amount of Cement Used 16.30 yd^3/hr * 0.2455 ton/yd^3 = 4 ton/hr
Control Technology Baghouse Control
Hours of Operation 5500 hr/yr or 15 hr/day

PM Emissions:

Emission Factor:	0.72 lb/ton (AP-42, table 11.12-2, 10/01)	
Control Efficiency:	99.90% Silo enclosure/baghouse (required permit condition)	
Hourly Calculations:	0.72 lb/ton * 4.0 ton/hr * (1-0.999) =	0.003 lb/hr
Daily Calculations:	0.003 lb/hr * 15 hr/day =	0.045 lb/day
Annual Calculations:	0.003 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	0.01 ton/yr

PM_{10} Emissions:

Emission Factor:	0.046 lb/ton (AP-42, table 11.12-2, 10/01)	
Control Efficiency:	99.90% silo enclosure/baghouse (required permit condition)	
Hourly Calculations:	0.046 lb/ton * 4.0 ton/hr * (1-0.999)=	0.002 lb/hr
Daily Calculations:	0.002 lb/hr * 15 hr/day =	0.03 lb/day
Annual Calculations:	0.002 lb/hr * 5500 hr/yr * 0.0005 ton/lb =	0.006 ton/yr

Haul Roads

Vehicle miles traveled: 5 VMT/day {Estimated}
Assumption: Rated Load Capacity < 50 tons
Hours of Operation: 8760 hr/yr
24 hr/day
365 day/yr

TSP Emissions:

Emission Factor:	13.90 lb/VMT (controlled) (AP-42 Section 13.2.2, 12/03)	
Calculations:	5.0 VMT/day * 13.90 lb/VMT =	69.50 lb/day
	69.50 lb/day * 365 day/yr * 0.0005 ton/lb =	12.68 ton/yr

PM-10 Emissions:

Emission Factor:	3.95 lb/VMT (controlled) (AP-42 Section 13.2.2, 12/03)	
Calculations:	5 VMT/day * 3.95 lb/VMT =	19.75 lb/day
	19.75 lb/day * 365 day/yr * 0.0005 ton/lb =	3.60 ton/yr

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM_{10}. Due to exceedances of the NAAQS for PM_{10}, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM_{10}. As a result of this designation, EPA required the Department and the City-County Health Departments to submit PM_{10} State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM_{10} emissions.

Addendum #3 to Permit #3320-02 is for a portable asphalt plant to be located in or within 10 km of certain PM_{10} nonattainment areas during the summer season (April 1 through September 30). Summertime operations may include areas in or within 10 km of certain PM_{10} nonattainment areas, including, but not limited to Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte.

VI. Air Quality Impacts

The amount of controlled emissions generated by the operation will not exceed any set ambient standard. In addition, Addendum #3 to Permit #3320-02 contains operational limitations and conditions that will be protective of the PM_{10} nonattainment areas.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined that there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
1520 East 6th Avenue
P.O. Box 200901
Helena, Montana 59620-0901
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Asphalt, LLC
6465 River Road
Bozeman, MT 59718

Air Quality Permit Number: 3320-02

Preliminary Determination Issued: 04/20/07
Department Decision Issued: 05/08/07
Permit Final: 05/24/07

1. *Legal Description of Site:* This permit is for the operation of a portable asphalt plant located at Section 31, Township 28 North, Range 21 West, in Yellowstone County, Montana. Permit #3320-02 would apply while operating at any location in Montana, except within those areas having a Department approved permitting program or those areas considered tribal lands. Addendum #3 is included in this air quality permit, to allow Asphalt to operate in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*

2. *Description of Project:* The permit applicant proposes the use of alternative fuels to supply burner for the drum-mix asphalt plant. Allowable fuels would include propane, natural gas, and fuel oils.

3. *Objectives of Project*: The object of the project would be to operate the business in a cost effective manner to provide revenue for the company by the sale and use of asphalt. The issuance of Permit #3320-02 and Addendum 3 would allow Asphalt to operate the permitted equipment at various locations throughout Montana, including the proposed initial site location.

4. *Additional Project Site Information:* In many cases, the drum mix asphalt plant operation may move to a general site location, or open cut pit, which has been previously permitted through the Industrial and Energy Minerals Bureau (IEMB). If this were the case, a more extensive EA for the site would have been conducted and would be found in the Mined Land Reclamation Permit for that specific site.

5. *Alternatives Considered:* In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Asphalt demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

6. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions and a

permit analysis, including a BACT analysis, would be contained in Permit #3320-02.

7. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and would not unduly restrict private property rights.

8. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment.* The "no action alternative" was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			yes
B.	Water Quality, Quantity, and Distribution			X			yes
C.	Geology and Soil Quality, Stability, and Moisture			X			yes
D.	Vegetation Cover, Quantity, and Quality			X			yes
E.	Aesthetics			X			yes
F.	Air Quality			X			yes
G.	Unique Endangered, Fragile, or Limited Environmental Resource			X			yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I	Historical and Archaeological Sites				X		yes
J.	Cumulative and Secondary Impacts			X			yes

Summary of Comments on Potential Physical and Biological Effects: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the same area as the modified asphalt plant operation. The modified asphalt plant operation would be considered a minor source of emissions (by industrial standards) with intermittent and seasonal operations. Facility operations would take place on an intermittent and seasonal basis, as to protect water resources (see Section 8.B for additional details). Berms would be used for sight and sound barriers, would be placed between the equipment and property boundaries, and would be vegetated to create an additional barrier between equipment operations and surrounding resources outside the pit site. Therefore, only minor effects on terrestrial life and aquatic life would be expected as a result of the proposed changes of equipment operations or from pollutant deposition.

B. Water Quality, Quantity, and Distribution

Water would be used for dust suppression on the surrounding roadways and areas of operation and for pollution control for equipment operations. However, water use would only cause minor impacts upon water quality, quantity, and distribution at the site because the equipment would only have seasonal and intermittent operations, only relatively small amounts of water would be needed for pollution control, and water would

be readily available at the site.

Overall, any impacts to the above-cited physical and biological resource of the human environment of the project area would be minor because the proposed modification to the asphalt plant would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

C. Geology and Soil Quality, Stability, and Moisture

The proposed modification of the existing asphalt plant operation would have only minor impacts on soils in any proposed site location (due to the use of alternate fuels) because the facility would remain a relatively small industrial operation, would continue to use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. Therefore, any impacts from the proposed new crushing/screening equipment to geology and soil quality, stability, and moisture at any proposed operational site would be minor.

Overall, any impacts to the above-cited physical and biological resource of the human environment of any given project area would be minor because the operation of the asphalt plant with the proposed modifications would typically be within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

D. Vegetation Cover, Quantity, and Quality

Because the modified facility would remain a minor source of emissions, by industrial standards, and would typically operate in areas previously designated and used for non-metallic mineral processing operations, impacts from the emissions from the modified asphalt plant would be minor and typical. As described in Section 8.F of this EA, the amount of air emissions generated from the modified facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because water use for pollution control would be minimal, as described in Section 8.B, and the associated soil disturbance from modified operations would be minimal, as described in Section 8.C, corresponding vegetative impacts would be minor.

Overall, any impacts to the above-cited physical and biological resource of the human environment of any given project area would be minor because the operation of the asphalt plant with the proposed modifications would typically be within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

E. Aesthetics

The modified asphalt plant operation would be visible and would create additional noise in the area. Permit #3320-02 and Addendum #3 would include conditions to control emissions, including visible emissions, from the plant. The asphalt plant operations would have a minor amount of emissions, would be portable, would have seasonal and

intermittent operations, would locate within a rather large open cut pit (having vegetated berms that would keep the equipment hidden from view and would reduce pollutant transport upon surrounding lands), and would locate near an existing highway. Therefore, any visual and noise impacts would be minor.

F. Air Quality

The air quality impacts from the modified asphalt plant operation would be minor because Permit #3320-02 and Addendum #3 would include conditions limiting the opacity from the plant, as well as requiring a baghouse and other means to control air pollution. Additionally, the facility is considered a minor source of air pollution by industrial standards and would be located in an area where good air pollutant dispersion would occur. Therefore, the air impacts would be minor.

The operations would be limited, by Permit #3320-02, to total emissions of 250 tons/year or less of any regulated pollutant from non-fugitive sources at the plant, including any additional equipment operated at the site. Furthermore, the facility emissions would be subject to BACT. For example, the plant would be required to use water to reduce emissions from equipment operations, storage piles, and haul roads. Also, the operation would have temporary and intermittent use, thereby further reducing potential air quality impacts from the facility. Therefore, air quality impacts would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

Emissions from the modified asphalt plant operations may impact unique, endangered, fragile, or limited environmental resources located in a given proposed project area. However, as detailed in Section V of the permit analysis, any emissions and resulting impacts from the project would be minor due to the low concentration of those pollutants emitted.

Permit #3320-02 would regulate the proposed modified asphalt facility while located at various locations throughout the state. Most operations would take place within existing and previously disturbed industrial sites thereby resulting in only minor impacts to the industrial area. Further, given the temporary and portable nature of the operations, any impacts would be minor and short-lived. In addition, operational conditions and limitations in Permit 3320-02 would be protective of these resources by limiting overall impacts to the surrounding environment.

Overall, any impacts to the above-cited physical and biological resource of the human environment of any given project area would be minor because the modified asphalt plant would result in similar impacts to those impacts created by the existing equipment. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

H. Demands on Environmental Resources of Water, Air, and Energy

Due to the size of the facility, the modified asphalt plant operation would only require small quantities of water, air, and energy for proper operation. Small quantities of water would be used for dust suppression and would control fugitive emissions being generated at the site. Energy requirements would also be small because the facility is small by industrial standards and would be powered by two industrial diesel generators, with seasonal and intermittent operations. In addition, impacts to air resources would be minor because the source is small by industrial standards, with intermittent and seasonal operations, and

because air pollutants generated by the facility would be widely dispersed. Furthermore, the particulate emissions would be controlled. Therefore, any impacts to water, air, and energy resources would be minor.

I. Historical and Archaeological Sites

Typically, the modified asphalt plant would operate within a previously disturbed site used for similar operations. According to past correspondence from the Montana Historical Society, State Historic Preservation Office (SHPO), there would be a low likelihood of disturbance to any known archaeological or historical site given any previous industrial disturbance in any given area of operation. Therefore, it is unlikely that the proposed modified asphalt plant would impact any historical or archaeological sites in a given area of operation.

J. Cumulative and Secondary Impacts

The modified asphalt plant operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would have seasonal and intermittent use and because the facility is considered a minor source of air pollutants by industrial standards. The modified facility would also have additional restrictions while operating in or within 10 km of certain PM_{10} nonattainment areas, which would further control pollutant emissions. The facility would generate emissions of PM, $PM_{10,}$ NO_x, VOC, CO, and SO_x. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance and noise at the initial site location. Additionally, this facility, in combination with the other emissions from the site would not be permitted to exceed 250 tons per year of non-fugitive emissions.

9. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no action alternative" was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Social Structures and Mores				X		yes
B.	Cultural Uniqueness and Diversity				X		yes
C.	Local and State Tax Base and Tax Revenue			X			yes
D	Agricultural or Industrial Production			X			yes
E.	Human Health			X			yes
F.	Access to and Quality of Recreational and Wilderness Activities			X			yes
G	Quantity and Distribution of Employment			X			yes
H.	Distribution of Population				X		yes
I.	Demands for Government Services			X			yes
J.	Industrial and Commercial Activity				X		yes
K.	Locally Adopted Environmental Plans and Goals			X			yes
L.	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:
The Department has prepared the following comments.

A. Social Structures and Mores

The modified asphalt plant operation would cause no disruption to the social structures and mores in the area because the facility is a minor source of emissions and, would initially and typically operate in an existing industrial site for such purposed, and would operate on a temporary and intermittent basis. Further, the proposed modified asphalt plant would be required to operate according to the limits and conditions that would be included in Permit 3320-02, which would limit any impacts to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of the area would not be impacted by the proposed modified asphalt plant operation because the site would be separated from the general population. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. Also, the predominant use of the surrounding area would not change as a result of this project.

C. Local and State Tax Base and Tax Revenue

The modified asphalt plant operation would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a temporary source and small by industrial standards. The facility would require the use of only a few employees and little or not additional employment to accommodate the proposed changes in operations. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue are expected to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The modified asphalt plant operation would have only a minor impact on local industrial production since the facility is small by industrial standards and would locate in an industrial use area. Because of the seasonal and intermittent use of the equipment and the staged use of the proposed project site, only minor and temporary effects to the existing agricultural land are expected to occur. As described in Section 8.D, impacts to vegetation would be minimal. Also, pollution control would be utilized on equipment operations and corresponding operational limits would be established (including those in Addendum #3) to protect the environment. Therefore, any effects upon agricultural or industrial production would be minor and short-lived.

E. Human Health

Permit #3320-02 and Addendum #3 would incorporate conditions to ensure that the asphalt plant would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 8.F., the air emissions from this facility would be minimized by the use of a baghouse and emission limits established in Permit #3320-02 and Addendum #3. Therefore, only minor impacts would be expected upon human health from the proposed asphalt plant.

F. Access to and Quality of Recreational and Wilderness Activities

Noise from the proposed modified facility would be minor because the asphalt plant operation would remain small by industrial standards and would operate in areas typically used for such operations. As a result, the amount of noise generated from the proposed change in operations would be minimal and typical for the area. Also, the facility would operate on a seasonal and intermittent basis. Therefore, any impacts to the quality of recreational and wilderness activities created by the proposed new equipment operating with the existing asphalt plant would be minor and short-lived.

G. Quantity and Distribution of Employment
H. Distribution of Population

The modified asphalt plant operation would require only a few existing employees for normal operations and operations would be conducted on a seasonal and intermittent basis thereby resulting in little, if any, permanent immigration into or emigration out of a given area of operation. Therefore the proposed modification of the existing asphalt plant operations would not impact the above-cited economic and social resources of the human environment of any given project area.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the asphalt plant operations are in progress. In addition, government services would be required for acquiring the appropriate permits from government agencies. Demands for government services would be minor.

J. Industrial and Commercial Activity

The modified asphalt plant operations would represent only a minor increase in the industrial activity in the given area because of the size of the operations (relatively small by industrial standards) and the portable and temporary nature of the facility. No additional industrial or commercial activity would be expected as a result of the proposed operations
.

K. Locally Adopted Environmental Plans and Goals

Asphalt would be allowed, by permit, to operate in areas designated by EPA as attainment, unclassified, or in or within 10 kilometers of certain PM_{10} nonattainment areas in the summer months. Permit #3320-02 and Addendum #3 would contain limits, which would be protective of air quality and the ambient air quality standards while the facility is operating in these designated areas. Additionally, because the facility is a portable source that will operate at multiple sites on an intermittent and temporary basis, the Department determined that any impacts to existing air quality in these areas of operation would be minor and short-lived.

L. Cumulative and Secondary Impacts

The asphalt plant would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because the source is a portable, temporary source. Minor increases in traffic would have minor effects on local traffic in the immediate area, thus, having a direct effect on the social environment.

Because the source is relatively small (by industrial standards) and temporary, only minor economic impacts to the local economy could be expected from the operation of the facility. Thus, minor and temporary cumulative effects would result to the local economy.

Recommendation: An Environmental Impact Statement (EIS) is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from construction and operation of the proposed facility are minor; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality - Permitting and Compliance Division (Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

Individuals or groups contributing to this EA: Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Montana Natural Heritage Program, and State Historic Preservation Office (Montana Historical Society).

EA prepared by: Julie Merkel
Date: April 2, 2007